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PAGE: 1

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/497,591

DATE: 03/01/2000  
TIME: 10:30:18

Input Set: I497591.RAW

This Raw Listing contains the General Information  
Section and up to first 5 pages.

P.S. [initials]

ENTERED

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1 <110> APPLICANT: Nelsestuen, Gary L.
2 <120> TITLE OF INVENTION: MODIFIED VITAMIN K-DEPENDENT
3 POLYPEPTIDES
4 <130> FILE REFERENCE: 09531-016001
5 <140> CURRENT APPLICATION NUMBER: US/09/497,591
6 <141> CURRENT FILING DATE: 2000-02-03
7 <150> EARLIER APPLICATION NUMBER: 09/302,239
8 <151> EARLIER FILING DATE: 1999-04-29
9 <150> EARLIER APPLICATION NUMBER: 08/955,636
10 <151> EARLIER FILING DATE: 1997-10-23
11 <160> NUMBER OF SEQ ID NOS: 21
12 <170> SOFTWARE: FastSEQ for Windows Version 4.0
13 <210> SEQ ID NO 1
14 <211> LENGTH: 44
15 <212> TYPE: PRT
16 <213> ORGANISM: Homo sapiens
17 <220> FEATURE:
18 <221> NAME/KEY: MOD_RES
19 <222> LOCATION: (0)...(0)
20 <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
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23 1 5 10 15
W--> 24 Cys Ile Xaa Xaa Ile Cys Asp Phe Xaa Xaa Ala Lys Xaa Ile Phe Gln
25 20 25 30
26 Asn Val Asp Asp Thr Leu Ala Phe Trp Ser Lys His
27 35 40
28 <210> SEQ ID NO 2
29 <211> LENGTH: 44
30 <212> TYPE: PRT
31 <213> ORGANISM: Bos taurus
32 <220> FEATURE:
33 <221> NAME/KEY: MOD_RES
34 <222> LOCATION: (0)...(0)
35 <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
36 <400> SEQUENCE: 2
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38 1 5 10 15
W--> 39 Cys Ser Xaa Xaa Val Cys Xaa Phe Xaa Xaa Ala Arg Xaa Ile Phe Gln
40 20 25 30
W--> 41 Asn Thr Xaa Asp Thr Met Ala Phe Trp Ser Phe Tyr
42 35 40
43 <210> SEQ ID NO 3
44 <211> LENGTH: 44
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PATENT APPLICATION US/09/497,591

DATE: 03/01/2000  
TIME: 10:30:18

Input Set: I497591.RAW

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46 <213> ORGANISM: Homo sapiens
47 <220> FEATURE:
48 <221> NAME/KEY: MOD_RES
49 <222> LOCATION: (0)...(0)
50 <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
51 <400> SEQUENCE: 3
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53 1 5 10 15
W--> 54 Cys Lys Xaa Xaa Gln Cys Ser Phe Xaa Xaa Ala Arg Xaa Ile Phe Lys
55 20 25 30
W--> 56 Asp Ala Xaa Arg Thr Lys Leu Phe Trp Ile Ser Tyr
57 35 40
58 <210> SEQ ID NO 4
59 <211> LENGTH: 44
60 <212> TYPE: PRT
61 <213> ORGANISM: Bos taurus
62 <220> FEATURE:
63 <221> NAME/KEY: MOD_RES
64 <222> LOCATION: (0)...(0)
65 <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
66 <400> SEQUENCE: 4
W--> 67 Ala Asn Gly Phe Leu Xaa Xaa Leu Arg Pro Gly Ser Leu Xaa Arg Xaa
68 1 5 10 15
W--> 69 Cys Arg Xaa Xaa Leu Cys Ser Phe Xaa Xaa Ala His Xaa Ile Phe Arg
70 20 25 30
W--> 71 Asn Xaa Xaa Arg Thr Arg Gln Phe Trp Val Ser Tyr
72 35 40
73 <210> SEQ ID NO 5
74 <211> LENGTH: 45
75 <212> TYPE: PRT
76 <213> ORGANISM: Homo sapiens
77 <220> FEATURE:
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79 <222> LOCATION: (0)...(0)
80 <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
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W--> 82 Tyr Asn Ser Gly Lys Leu Xaa Xaa Phe Val Gln Gly Asn Leu Xaa Arg
83 1 5 10 15
W--> 84 Xaa Cys Met Xaa Xaa Lys Cys Ser Phe Xaa Xaa Ala Arg Xaa Val Phe
85 20 25 30
W--> 86 Xaa Asn Thr Xaa Arg Thr Thr Xaa Phe Trp Lys Gln Tyr
87 35 40 45
88 <210> SEQ ID NO 6
89 <211> LENGTH: 46
90 <212> TYPE: PRT
91 <213> ORGANISM: Bos taurus
92 <220> FEATURE:
93 <221> NAME/KEY: MOD_RES
94 <222> LOCATION: (0)...(0)

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RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/497,591DATE: 03/01/2000  
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95 <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
96 <400> SEQUENCE: 6
W--> 97   Tyr Asn Ser Gly Lys Leu Xaa Xaa Phe Val Gln Gly Asn Leu Xaa Arg
98       1           5           10           15
W--> 99   Xaa Cys Met Xaa Xaa Lys Cys Ser Phe Xaa Xaa Ala Arg Xaa Val Phe
100       20           25           30
W--> 101  Xaa Asn Thr Xaa Lys Arg Thr Thr Xaa Phe Trp Lys Gln Tyr
102       35           40           45
103 <210> SEQ ID NO 7
104 <211> LENGTH: 36
105 <212> TYPE: DNA
106 <213> ORGANISM: Artificial Sequence
107 <220> FEATURE:
108 <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
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110   aaattaatac gactcactat agggagaccc aagctt
111 <210> SEQ ID NO 8
112 <211> LENGTH: 42
113 <212> TYPE: DNA
114 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
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118   gcactcccg ctcaggctgc tgggacggag ctctccagg aa
119 <210> SEQ ID NO 9
120 <211> LENGTH: 36
121 <212> TYPE: DNA
122 <213> ORGANISM: Artificial Sequence
123 <220> FEATURE:
124 <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
125 <400> SEQUENCE: 9
126   acgctccacg ttgccgtgcc gcagctcctc taggaa
127 <210> SEQ ID NO 10
128 <211> LENGTH: 36
129 <212> TYPE: DNA
130 <213> ORGANISM: Artificial Sequence
131 <220> FEATURE:
132 <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
133 <400> SEQUENCE: 10
134   ttcctagagg agctgcggca cggcaacgtg gagcgt
135 <210> SEQ ID NO 11
136 <211> LENGTH: 36
137 <212> TYPE: DNA
138 <213> ORGANISM: Artificial Sequence
139 <220> FEATURE:
140 <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
141 <400> SEQUENCE: 11
142   gcatttaggt gacactatag aatagggccc tctaga
143 <210> SEQ ID NO 12
144 <211> LENGTH: 42

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145 <212> TYPE: DNA
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147 <220> FEATURE:
148 <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
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151 <210> SEQ ID NO 13
152 <211> LENGTH: 36
153 <212> TYPE: DNA
154 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
157 <400> SEQUENCE: 13
158     cagtgtgtca tccacatctt cgaaaatttc cttggc          36
159 <210> SEQ ID NO 14
160 <211> LENGTH: 36
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
165 <400> SEQUENCE: 14
166     gccaaaggaaa ttttcgaaga tgtggatgac acactg          36
167 <210> SEQ ID NO 15
168 <211> LENGTH: 36
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
171 <220> FEATURE:
172 <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
173 <400> SEQUENCE: 15
174     cagtgtgtca tccacatttt cgaaaatttc cttggc          36
175 <210> SEQ ID NO 16
176 <211> LENGTH: 36
177 <212> TYPE: DNA
178 <213> ORGANISM: Artificial Sequence
179 <220> FEATURE:
180 <223> OTHER INFORMATION: Protein C mutagenic oligonucleotide
181 <400> SEQUENCE: 16
182     gccaaaggaaa ttttcgaaaa tgtggatgac acactg          36
183 <210> SEQ ID NO 17
184 <211> LENGTH: 45
185 <212> TYPE: PRT
186 <213> ORGANISM: Bos taurus
187 <220> FEATURE:
188 <221> NAME/KEY: MOD_RES
189 <222> LOCATION: (0)...(0)
190 <223> OTHER INFORMATION: Xaa=gamma carboxyglutamic acid or glutamic acid
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193         1             5             10             15
W--> 194     Xaa Cys Leu Xaa Xaa Pro Cys Ser Arg Xaa Xaa Ala Phe Xaa Ala Leu

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195          20          25          30
W--> 196      Xaa Ser Leu Ser Ala Thr Asp Ala Phe Trp Ala Lys Tyr
197          35          40          45
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199 <211> LENGTH: 44
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201 <213> ORGANISM: Bos taurus
202 <220> FEATURE:
203 <221> NAME/KEY: MOD_RES
204 <222> LOCATION: (0)...(0)
205 <223> OTHER INFORMATION: Xaa=carboxyglutamic acid or glutamic acid
206 <400> SEQUENCE: 18
W--> 207      Ala Asn Ser Phe Leu Xaa Xaa Val Lys Gln Gly Asn Leu Xaa Arg Xaa
208          1          5          10          15
W--> 209      Cys Leu Xaa Xaa Ala Cys Ser Leu Xaa Xaa Ala Arg Xaa Val Phe Xaa
210          20          25          30
W--> 211      Asp Ala Xaa Gln Thr Asp Xaa Phe Trp Ser Lys Tyr
212          35          40
213 <210> SEQ ID NO 19
214 <211> LENGTH: 44
215 <212> TYPE: PRT
216 <213> ORGANISM: Homo sapiens
217 <220> FEATURE:
218 <221> NAME/KEY: MOD_RES
219 <222> LOCATION: (0)...(0)
220 <223> OTHER INFORMATION: Xaa=carboxyglutamic acid or glutamic acid
221 <400> SEQUENCE: 19
W--> 222      Ala Asn Ser Leu Leu Xaa Xaa Thr Lys Gln Gly Asn Leu Xaa Arg Xaa
223          1          5          10          15
W--> 224      Cys Ile Xaa Xaa Leu Cys Asn Lys Xaa Xaa Ala Arg Xaa Val Phe Xaa
225          20          25          30
W--> 226      Asn Asp Pro Xaa Thr Asp Tyr Phe Tyr Pro Lys Tyr
227          35          40
228 <210> SEQ ID NO 20
229 <211> LENGTH: 45
230 <212> TYPE: PRT
231 <213> ORGANISM: Homo sapiens
232 <220> FEATURE:
233 <221> NAME/KEY: MOD_RES
234 <222> LOCATION: (0)...(0)
235 <223> OTHER INFORMATION: Xaa=carboxyglutamic acid or glutamic acid
236 <400> SEQUENCE: 20
W--> 237      Ala Gly Ser Tyr Leu Leu Xaa Xaa Leu Phe Xaa Gly Asn Leu Xaa Lys
238          1          5          10          15
W--> 239      Xaa Cys Tyr Xaa Xaa Ile Cys Val Tyr Xaa Xaa Ala Arg Xaa Val Phe
240          20          25          30
W--> 241      Xaa Asn Xaa Val Val Thr Asp Xaa Phe Trp Arg Arg Tyr
242          35          40          45
243 <210> SEQ ID NO 21
<211> LENGTH: 45

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**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Input Set: I497591.RAW

Line	Error/Warning	Original Text
22	W "N" or "Xaa" used: Feature required	Ala Asn Ser Phe Leu Xaa Xaa Leu Arg His S
24	W "N" or "Xaa" used: Feature required	Cys Ile Xaa Xaa Ile Cys Asp Phe Xaa Xaa A
37	W "N" or "Xaa" used: Feature required	Ala Asn Ser Phe Leu Xaa Xaa Leu Arg Pro G
39	W "N" or "Xaa" used: Feature required	Cys Ser Xaa Xaa Val Cys Xaa Phe Xaa Xaa A
41	W "N" or "Xaa" used: Feature required	Asn Thr Xaa Asp Thr Met Ala Phe Trp Ser P
52	W "N" or "Xaa" used: Feature required	Ala Asn Ala Phe Leu Xaa Xaa Leu Arg Pro G
54	W "N" or "Xaa" used: Feature required	Cys Lys Xaa Xaa Gln Cys Ser Phe Xaa Xaa A
56	W "N" or "Xaa" used: Feature required	Asp Ala Xaa Arg Thr Lys Leu Phe Trp Ile S
67	W "N" or "Xaa" used: Feature required	Ala Asn Gly Phe Leu Xaa Xaa Leu Arg Pro G
69	W "N" or "Xaa" used: Feature required	Cys Arg Xaa Xaa Leu Cys Ser Phe Xaa Xaa A
71	W "N" or "Xaa" used: Feature required	Asn Xaa Xaa Arg Thr Arg Gln Phe Trp Val S
82	W "N" or "Xaa" used: Feature required	Tyr Asn Ser Gly Lys Leu Xaa Xaa Phe Val G
84	W "N" or "Xaa" used: Feature required	Xaa Cys Met Xaa Xaa Lys Cys Ser Phe Xaa X
86	W "N" or "Xaa" used: Feature required	Xaa Asn Thr Xaa Arg Thr Thr Xaa Phe Trp L
97	W "N" or "Xaa" used: Feature required	Tyr Asn Ser Gly Lys Leu Xaa Xaa Phe Val G
99	W "N" or "Xaa" used: Feature required	Xaa Cys Met Xaa Xaa Lys Cys Ser Phe Xaa X
101	W "N" or "Xaa" used: Feature required	Xaa Asn Thr Xaa Lys Arg Thr Thr Xaa Phe T
192	W "N" or "Xaa" used: Feature required	Ala Asn Lys Gly Phe Leu Xaa Xaa Val Arg L
194	W "N" or "Xaa" used: Feature required	Xaa Cys Leu Xaa Xaa Pro Cys Ser Arg Xaa X
196	W "N" or "Xaa" used: Feature required	Xaa Ser Leu Ser Ala Thr Asp Ala Phe Trp A
207	W "N" or "Xaa" used: Feature required	Ala Asn Ser Phe Leu Xaa Xaa Val Lys Gln G
209	W "N" or "Xaa" used: Feature required	Cys Leu Xaa Xaa Ala Cys Ser Leu Xaa Xaa A
211	W "N" or "Xaa" used: Feature required	Asp Ala Xaa Gln Thr Asp Xaa Phe Trp Ser L
222	W "N" or "Xaa" used: Feature required	Ala Asn Ser Leu Leu Xaa Xaa Thr Lys Gln G
224	W "N" or "Xaa" used: Feature required	Cys Ile Xaa Xaa Leu Cys Asn Lys Xaa Xaa A
226	W "N" or "Xaa" used: Feature required	Asn Asp Pro Xaa Thr Asp Tyr Phe Tyr Pro L
237	W "N" or "Xaa" used: Feature required	Ala Gly Ser Tyr Leu Leu Xaa Xaa Leu Phe X
239	W "N" or "Xaa" used: Feature required	Xaa Cys Tyr Xaa Xaa Ile Cys Val Tyr Xaa X
241	W "N" or "Xaa" used: Feature required	Xaa Asn Xaa Val Val Thr Asp Xaa Phe Trp A
252	W "N" or "Xaa" used: Feature required	Ala Gly Ser Tyr Leu Leu Xaa Xaa Leu Phe X
254	W "N" or "Xaa" used: Feature required	Lys Cys Trp Xaa Xaa Ile Cys Val Tyr Xaa X
256	W "N" or "Xaa" used: Feature required	Xaa Asp Asp Xaa Thr Thr Asp Xaa Phe Trp A